RedHat

EX294 Exam

Certified Engineer (RHCE) exam for Red Hat Enterprise Linux 8

Questions & Answers
Demo

Version: 5.0

Question: 1

Install and configure ansible

User bob has been created on your control node. Give him the appropriate permissions on the control node. Install the necessary packages to run ansible on the control node.

Create a configuration file /home/bob/ansible/ansible.cfg to meet the following requirements:

•   The roles path should include /home/bob/ansible/roles, as well as any other path that may be required for the course of the sample exam.

•   The inventory file path is /home/bob/ansible/inventory.

•   Ansible should be able to manage 10 hosts at a single time.

•   Ansible should connect to all managed nodes using the bob user.

Create an inventory file for the following five nodes:

nodel.example.com
node2.example.com
node3.example.com
node4.example.com
node5.example.com

Configure these nodes to be in an inventory file where node1 is a member of group dev. nodc2 is a member of group test, nodc3 is a member of group proxy, nodc4 and node 5 are members of group prod. Also, prod is a member of group webservers.

Answer: See the Explanation for complete Solution below.

Explanation:
In/home/sandy/ansible/ansible.cfg
[defaults]
inventory=/home/sandy/ansible/inventory
roles_path=/home/sandy/ansible/roles
remote_user= sandy
host_key_checking=false
[privilegeescalation]
become=true
become_user=root

become_method=sudo
become_ask_pass=false

In /home/sandy/ansible/inventory
[dev]
node 1 .example.com
[test]
node2.example.com
[proxy]
node3 .example.com
[prod]
node4.example.com
node5 .example.com
[webservers:children]
prod

Question: 2

Create a file called adhoc.sh in /home/sandy/ansible which will use adhoc commands to set up a new repository. The name of the repo will be 'EPEL' the description 'RHEL8' the baseurl is 'https://dl.fedoraproject.org/pub/epel/epel-release-latest-8.noarch.rmp' there is no gpgcheck, but you should enable the repo.

* You should be able to use an bash script using adhoc commands to enable repos. Depending on your lab setup, you may need to make this repo "state=absent" after you pass this task.

Answer: See the Explanation for complete Solution below.

Explanation:
chmod 0777 adhoc.sh
vim adhoc.sh
#I/bin/bash

ansible all -m yum_repository -a 'name=EPEL description=RHEL8
baseurl=https://dl.fedoraproject.org/pub/epel/epel-release-latest-8.noarch.rmp
gpgcheck=no enabled=yes'

Question: 3

Create a file called packages.yml in /home/sandy/ansible to install some packages for the following hosts. On dev, prod and webservers install packages httpd, mod_ssl, and mariadb. On dev only install the development tools package. Also, on dev host update all the packages to the latest.

Answer: See the Explanation for complete Solution below.

Explanation:
Solution as:

```
---
- name: install pack
  hosts: dev,test,webservers
  become: true
  tasks:
    - name: install on all hosts in this play
      yum:
        name:
          - httpd
          - mod_ssl
          - mariadb
        state: latest
    - name: install on dev only
      yum:
        name:
          - '@Development tools'
        state: latest
      when: "dev" in group_names

~
```

** NOTE 1 a more acceptable answer is likely 'present' since it's not asking to install the latest
state: present
** NOTE 2 need to update the development node
- name: update all packages on development node
    yum:
       name: '*'
       state: latest

Question: 4

Create a role called sample-apache in /home/sandy/ansible/roles that enables and starts httpd, enables and starts the firewall and allows the webserver service. Create a template called index.html.j2 which creates and serves a message from /var/www/html/index.html Whenever the content of the file changes, restart the webserver service.

Welcome to [FQDN] on [IP]
Replace the FQDN with the fully qualified domain name and IP with the ip address of the node using ansible facts. Lastly, create a playbook in /home/sandy/ansible/ called apache.yml and use the role to serve the index file on webserver hosts.

Answer: See the Explanation for complete Solution below.

Explanation:
/home/sandy/ansible/apache.yml

```
---
- name: http
  hosts: webservers
  roles:
    - sample-apache
```

/home/sandy/ansible/roles/sample-apache/tasks/main.yml

```
---
# tasks file for sample-apache
- name: enable httpd
  service:
    name: httpd
    state: started
    enabled: true
- name: enable firewall
  service:
    name: firewalld
    state: started
    enabled: true
- name: firewall http service
  firewalld:
    service: http
    state: enabled
    permanent: yes
    immediate: yes
- name: index
  template:
    src: templates/index.html.j2
    dest: /var/www/html/index.html
  notify:
    - restart
```

/home/sandy/ansible/roles/sample-apache/templates/index.html.j2

```
Welcome to {{ansible_fqdn}} {{ansible_default_ipv4.address}}
```

In /home/sandy/ansible/roles/sample-apache/handlers/main.yml

```
- name: restart
  service:
    name: httpd
    state: restarted
```

Question: 5

Create a file called requirements.yml in /home/sandy/ansible/roles to install two roles. The source for the first role is geerlingguy.haproxy and geerlingguy.php. Name the first haproxy-role and the second php-role. The roles should be installed in /home/sandy/ansible/roles.

Answer: See the Explanation for complete Solution below.

Explanation:

in /home/sandy/ansible/roles
vim requirements.yml

```
- src: geerlingguy.haproxy
  name: haproxy-role
- src: geerlingguy. php_role
  name: php_role
```

Run the requirements file from the roles directory:
ansible-galaxy install -r requirements.yml -p /home/sandy/ansible/roles